## IN THE CLAIMS

Please enter the following amendments. The amendments are fully supported in the specification and no new material is added.

- 1. (Twice Amended) A low impedance band-gap reference circuit, comprising:
  - a band-gap reference circuit;
  - a buffer circuit electronically coupled with said band-gap reference circuit; and
  - a voltage pull-up device electronically coupled with between said band-gap reference circuit and said buffer circuit, wherein said voltage pull-up device acts to reduce a required supply voltage to maintain a band-gap reference voltage and wherein said voltage pull-up device is implemented as a transistor with a VBE of less than 1.0 volts VBE.
- 2. (Amended) A <u>low impedance</u> band-gap reference circuit as described in Claim 1, wherein said band-gap reference circuit resides in an integrated circuit device.
- 3. (Amended) A <u>low impedance</u> band-gap reference circuit as described in Claim 1, wherein said band-gap reference circuit is implemented in a silicon substrate.
- 4. (Amended) A <u>low impedance</u> band-gap reference circuit as described in Claim 1, wherein said buffer circuit is implemented as a transistor.
- 5. (Previously Cancelled)
- 6. (Twice Amended) A <u>low impedance</u> band-gap reference circuit as described in Claim 1, wherein said band gap reference voltage is provided by current through a transistor with a VBE of less than 1.0 volts.
- 7. (Twice Amended) An electronic device, comprising:
  - a silicon substrate;
  - electronic circuitry constructed in said silicon substrate; and
  - a <u>low impedance</u> band-gap reference circuit electronically coupled in said electronic device, wherein said electronic circuitry requires reference to the output voltage of said band-gap reference circuit and said band-gap reference circuit is enabled for low

NSC-P05052/JPH/MRH Examiner: Cunningham, Terry D. Serial No.: 09/970,297 2 Art Unit: 2816



impedance by a buffer circuit comprising a transistor with <u>a VBE of less than 1.0 volts</u> VBE.

- 8. An electronic device as described in Claim 7, wherein said electronic device is an integrated circuit device.
- 9. (Previously Cancelled)
- 10. (Previously Cancelled)
- 11. (Previously Amended) An electronic device as described in Claim 7, wherein said transistor with less than 1.0 VBE is connected as an emitter follower.
- 12. An electronic device as described in Claim 7, wherein said band-gap reference circuit is enabled for low supply voltage.
- 13. An electronic device as described in Claim 12, wherein said band-gap reference circuit is enabled for said low supply voltage by a voltage pull-up device.
- 14. (Previously Cancelled)
- 15. (Previously Amended) An electronic device as described in Claim 13, wherein said band gap reference voltage is provided by current through a transistor with a VBE of less than 1.0 volts.
- 16. (Twice Amended) In an electronic device, a method for providing a reference voltage, comprising:

flowing current through an electronic element such that the band-gap voltage of said electronic element provides said reference voltage;

providing a buffer circuit enabled to provide low impedance; and adjusting the voltage across said buffer circuit so that said band-gap reference voltage is maintained, wherein said voltage is a VBE of less than 1.0 ¥ volts.

17. (Original) A method as described in Claim 16, wherein said electronic device is an integrated circuit device.

NSC-P05052/JPH/MRH Serial No.: 09/970,297 Examiner: Cunningham, Terry D. Art Unit: 2816

- 18. (Original) A method as described in Claim 16, wherein said buffer circuit is implemented as a transistor circuit.
- 19. (Original) A method as described in Claim 18, wherein said transistor circuit is connected as an emitter follower.
- 20. (Original) A method as described in Claim 16, wherein said band-gap reference circuit is enabled for low supply voltage.
- 21. (Original) A method as described in Claim 20, wherein said band-gap reference circuit is enabled for said low supply voltage by a voltage pull-up device.
- 22. (Previously Cancelled)
- 23. (Previously Amended) A method as described in Claim 21, wherein said band gap reference voltage is provided by current through a transistor with a VBE of less than 1.0 volts.

NSC-P05052/JPH/MRH Serial No.: 09/970,297 Examiner: Cunningham, Terry D. Art Unit: 2816

4